

## EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S2	9	US-2814540-\$.DID. OR US-3747479-\$.DID. OR US-4804290-\$.DID. OR US-4889351-\$.DID. OR US-4891133-\$.DID. OR US-5113747-\$.DID. OR US-5169522-\$.DID. OR US-5192433-\$.DID. OR US-5378361-\$.DID.	US-PGPUB; USPAT	OR	OFF	2007/04/17 15:53
S3	340	92/255.ccls.	US-PGPUB; USPAT	OR	OFF	2007/04/17 23:22
S4	197	("1561854"   "1589881"   "2394687"   "2784013"   "2895773"   "2915349"   "3024913"   "3049796"   "3440864"   "3453811"   "3487938"   "3510271"   "3539505"   "3589677"   "3682315"   "3727925"   "3763879"   "3771659"   "3774920"   "3855130"   "3862038"   "3885800"   "3904527"   "3966609"   "4000070"   "4027816"   "4061031"   "4070285"   "4084718"   "4093550"   "4113627"   "4135742"   "4162977"   "4179131"   "4181853"   "4208279"   "4252331"   "4280905"   "4350595"   "4354932"   "4361482"   "4387075"   "4399032"   "4448429"   "4451364"   "4451365"   "4469597"   "4476017"   "4478715"   "4478720"   "4483773"   "4512897"   "4522715"   "4523765"   "4545904"   "4549584"   "4557830"   "4563275"   "4564450"   "4566703"   "4576386"   "4578193"   "4579041"   "4582608"   "4597866"   "4627918"   "4636315"   "4675104"   "4681327"   "4692243"   "4702482"   "4709932"   "4714259"   "4723782"   "4732672"   "4732687"   "4737284"   "4737292"   "4749201"   "4749202"   "4758340"   "4806238"   "4861473"   "4874520"   "4876005"   "4882047"   "4888112"   "4891133"   "4894152"   "Re31974"). PN. OR ("3747479"   "4889351"   "4891133"   "5169522").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/04/17 23:22
S5	330687	chromatography or chromatographic	US-PGPUB; USPAT	OR	OFF	2007/04/17 23:23
S6	379455	piston or plunger	US-PGPUB; USPAT	OR	OFF	2007/04/17 23:23
S7	202546	scraper or lip	US-PGPUB; USPAT	OR	OFF	2007/04/17 23:24
S8	12	S5 same S6 same S7	US-PGPUB; USPAT	OR	OFF	2007/04/17 23:28

## EAST Search History

S9	1437321	column or tube	US-PGPUB; USPAT	OR	OFF	2007/04/17 23:28
S10	1834374	column or tube or cylinder	US-PGPUB; USPAT	OR	OFF	2007/04/17 23:28
S11	55	S5 same S7 same S10	US-PGPUB; USPAT	OR	OFF	2007/04/17 23:28
S12	50	(US-20060018776-\$ or US-20060156918-\$).did. or (US-4085490-\$ or US-4599951-\$ or US-4811706-\$ or US-4787295-\$ or US-4771758-\$ or US-4629198-\$ or US-4520660-\$ or US-4592916-\$ or US-4571004-\$ or US-4564202-\$ or US-4541640-\$ or US-6199274-\$ or US-4516481-\$ or US-4470388-\$ or US-4470375-\$ or US-3843283-\$ or US-4251081-\$ or US-4401307-\$ or US-4079949-\$ or US-4422508-\$ or US-4247121-\$ or US-4375763-\$ or US-4462602-\$ or US-4444049-\$ or US-4381236-\$ or US-5911279-\$).did. or (US-3905730-\$ or US-4005953-\$ or US-5979304-\$ or US-4363223-\$ or US-4308677-\$ or US-4762622-\$ or US-6112828-\$ or US-3601419-\$ or US-4145060-\$ or US-4071308-\$ or US-4484512-\$ or US-4793062-\$ or US-4556156-\$ or US-3869230-\$ or US-4966068-\$ or US-3872009-\$ or US-4257230-\$ or US-4473232-\$ or US-4402213-\$ or US-4973066-\$ or US-4468040-\$ or US-5617604-\$).did.	US-PGPUB; USPAT	OR	OFF	2007/04/18 06:17
S13	2501	210/198.2.ccls.	US-PGPUB; USPAT	OR	OFF	2007/04/18 06:23
S14	330687	chromatography or chromatographic	US-PGPUB; USPAT	OR	OFF	2007/04/18 07:03
S15	2367	S13 and S14	US-PGPUB; USPAT	OR	OFF	2007/04/18 06:23
S16	1834374	column or tube or cylinder	US-PGPUB; USPAT	OR	OFF	2007/04/18 07:03
S17	2273	S15 and S16	US-PGPUB; USPAT	OR	OFF	2007/04/18 06:24
S18	636	S17 and seal	US-PGPUB; USPAT	OR	OFF	2007/04/18 06:24
S19	1	(10/114528).APP.	USPAT; USOCR	OR	OFF	2007/04/18 06:27

## EAST Search History

S20	173	("1808441"   "2607954"   "2696818"   "2761833"   "2793016"   "3266554"   "3398512"   "3440864"   "3463320"   "3483986"   "3615235"   "3682315"   "3692669"   "3695450"   "3704729"   "3722697"   "3732981"   "3763879"   "3780866"   "3815754"   "3853769"   "3902849"   "3966609"   "3978575"   "4093550"   "4155846"   "4157967"   "4163462"   "4211658"   "4250035"   "4271015"   "4283280"   "4286139"   "4288325"   "4309286"   "4350595"   "4361482"   "4384957"   "4451365"   "4452070"   "4457846"   "4476017"   "4483374"   "4496461"   "4510058"   "4529007"   "4529511"   "4551249"   "4554071"   "4557830"   "4565632"   "4582608"   "4587014"   "4597866"   "4625765"   "4636315"   "4636316"   "4655917"   "4670141"   "4675104"   "4675105"   "4710289"   "4719011"   "4732687"   "4737284"   "4737292"   "4755293"   "4769141"   "4787971"   "4797209"   "4798676"   "4806238"   "4861473"   "4865728"   "4872979"   "4876005"   "4882047"   "4888112"   "4891133"   "4894152"   "4903941"   "4927531"   "4968421"   "4971688"   "4997465"   "5037544"   "5089125"   "5137628"   "5141635"   "5167809"   "5167810"   "5169522"   "5171430"   "5188730"   "5192433"   "5194225"   "5213683"   "5227059"   "5234599"   "5238556"   "5324426"   "5324427"   "5338448"   "5354462"   "5360544"   "5366621"   "5378359"   "5378361"   "5395521"   "5423982"   "5433847"   "5462659"   "5462660"   "5470479"   "5482628"   "5494222"   "5531810"   "5595653"   "5601708"   "5614089"   "5670048"   "5693223"   "5866008"   "5893971"   "5951873").PN. OR ("6036855"   "6068767"   "6116573"   "6139732"   "6162362"   "6171486"   "6224760"   "6294087"   "6436284"   "6527951"   "6565745"   "6811688"   "D285290").PN. OR ("5378361"   "5693223"   "6436284"   "6802968"   "6923908"   "6932904"   "6942794"). URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/04/18 06:49
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## EAST Search History

S21	32	("3493503"   "3810545"   "3859999"   "3902849"   "3976529"   "4008718"   "4061143"   "4168147"   "4214993"   "4238197"   "4270921"   "4341635"   "4448206"   "4572210"   "4596561"   "4660569"   "4732162"   "4787971"   "4820276"   "4891133"   "4892710"   "4936315"   "4973450").PN. OR ("5186839").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2007/04/18 06:58
S22	56215	chromatography or chromatographic	EPO; JPO; DERWENT	OR	OFF	2007/04/18 07:03
S23	1921267	column or tube or cylinder	EPO; JPO; DERWENT	OR	OFF	2007/04/18 07:03
S24	439	S22 and S23 and seal	EPO; JPO; DERWENT	OR	OFF	2007/04/18 07:04
S25	225	92/194.ccls.	US-PGPUB; USPAT	OR	OFF	2007/04/18 07:57
S26	58	92/203.ccls.	US-PGPUB; USPAT	OR	OFF	2007/04/18 08:06
S27	3	(piston and scraper and groove and ring and seal).clm.	US-PGPUB	OR	OFF	2007/04/18 08:07
S28	294	(piston and groove and ring and seal).clm.	US-PGPUB	OR	OFF	2007/04/18 08:07
S29	7	(piston and groove and seal and scraper).clm.	US-PGPUB	OR	OFF	2007/04/18 08:07